



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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EXAMINER	
HATTISON, B	
ART UNIT	PAPER NUMBER
234	12

DATE MAILED: 03/21/87

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on May 26, 1987 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I : THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.       | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449  | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/>   |

Part II SUMMARY OF ACTION

1. ☒ Claims 2-65, 69 and 73-105 are pending in the application.
- Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 2-65, 69 and 73-105 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are ☐ acceptable;  
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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15. This application is responsive to the communication filed on May 26, 1987.

16. As per request, claims 66-68 and 70-72 have been cancelled and claims 2, 4, 11, 12, 14-37, 44, 46, 48-52, 55, 58, 60-63, 65, 75, 76, 79-83, 89, 91, 95, 99, 100, 102 and 103 have been amended. Thus claims 2-65, 69 and 73-105 are pending.

17. Claims 2-65, 69 and 73-105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following is a partial list of elements with improper antecedent basis: the (vehicle) operator (Claims 102 and 103), the loading (Claim 103), the dumping (Claim 103), the direction (Claim 103), the approximate weight (Claim 2), the weight (Claims 33-35, 60, 75, 83 and 95), the load (Claims 33, 34, 60 and 75), the body (Claims 33 and 34), the entire weight (Claims 33, 34 and 60), said processor means (Claim 33), the lowering (Claim 34), the remaining weight capacity (Claim 35), the bucket (Claim 35), the material (Claim 35), the hauling time (Claim 44), the truck's hauling status (Claim 44), the degree (claim 52), the force (Claim 52), the force spikes (Claims 52--Plurality not established), the total count (Claim 52), the frame (Claim 55), the distance traveled (Claim 55), the beginning (Claim 55), the elapsed time (Claim 55), the total distance (Claim 55), the value (Claim 55), the

truck operator (Claim 58), etc. It is to be emphasized that this is a partial listing of errors in this area. It is the applicant's responsibility to carefully analyze each claim to ensure proper antecedent basis for all elements in the claims. The use of "the" or "said" implies that an element has been previously established which has not occurred in these instances. Correction of each is required for clear interpretation of the claimed invention.

Further as to Claim 52, line 9 is unclear as presenting written. What is "other stored force"?

Further as to claim 73, line 17 is unclear. What is meant by "to ensure a known surface area of contact"? How is this ensured by the calibration plate?

Further as to Claim 90, the phrase "substantially uniform" is vague and indefinite. The phrase has no specific meaning and requires correction to specifically claim the instant invention.

Further as to Claim 96, line 4 has no clear meaning. As to Claim 100, after the word "sensor" in line 10, a semi-colon is believed to have been omitted.

All dependent claims, Claims 2-32, 36-43, 45-51, 53, 54, 56, 57, 59, 61, 62, 64, 65, 74, 77-82, 84-86, 88, 89, 91-94, 96-98, 101, 104 and 105, are rejected in addition to the reasons set forth above for being dependent upon a claim or claims with no clear meaning making their own meaning unclear.

18. Claims 63,65,69 and 87-94 are further rejected under 35 U.S.C. 103 as being unpatentable over Lindstrom et al in view of Hartman and Andersson et al.

The Lindstrom et al. reference discloses a device for indicating the load on a truck accumulated through partial weighings to arrive at the total load weight. A load is placed on a truck frame, and a transducer sends signals indicative of the weight to a processor. The weight can be displayed via the processing means. The device automatically accounts for the tare weight.

The Hartman reference discloses a dump truck load-sensing assembly which measures the weight of a pivotally carried container on a vehicle. The weight is able to be measured at any point that the container is supported by the frame.

The Andersson et al reference discloses a system for measuring the axle load on an axle of a vehicle. The reference is explicitly cited for this reason, however, it is clear from Hartman that the weight can be measured at any point.

It would be obvious to one with only ordinary skill in the art to combine the Lindstrom et al reference with the teachings of Hartman and Andersson et al. Such a combination would have been obvious at the time of their respective inventions since each involves weighing apparatus on a truck assembly. The type of sensors used and the displaying of selected sensed data are well-practiced in the art and does not render the aforementioned claims patentable distinction over the

19. Claims 95-98 are further rejected under 35 U.S.C. 103 as being unpatentable over Lindstrom et al in view of Hartman and Andersson et al further in view of the Coal Age Magazine Article.

The article from Coal Age Magazine discloses a system for monitoring and controlling operations for trucks between dumping and loading sites. The key aspect of this article is the concept of a remote means from the vehicle for receiving, processing and displaying desired information.

Remote monitoring and controlling of a given system is well-known in the art, and it would be obvious to implement the obvious combination discussed in paragraph 18 of this office action with the teaching of the Coal Age Magazine article to achieve claims 95-98 of the instant invention.

20. Claim 99 is further rejected under 35 U.S.C. 103 as being unpatentable over Merriman et al..

The Merriman et al. reference discloses an end clamp for sealing a flexible wall tube. Sealed joint lines result from tightening nuts about threaded bolts to firmly pinch the ends. Claim 99 of the instant invention sets forth an end clamp with three portions to seal the tubing with a collar around the end portion for keeping the tubing from changing its cross-sectional shape. It is well known in the art to seal a tubing using infinite combinations of embodiments. Merriman et al. is one example of these many well-known devices. It

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would be obvious to anyone with only ordinary skill in the art to seal the end of a tubing with a clamp and collar and does not deem the instant invention patentable distinction.

21. References

References submitted by the applicant which have been considered is clearly shown on form PTO-1449. Non-pateint literature cited by the applicant has not been considered. To conform with the applicant's duty of disclosure, a copy of each of these references is required to be submitted.

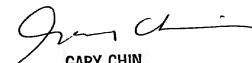
22. The text of those sections of Title 35 U. S. Code not included in this action can be found in a prior Office action.

23. Any inquiry concerning this communication should be directed to Examiner Mattson at telephone number 703-557-8057.

BM/ayc

8-18-87

BRIAN M. MATTSON  
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